

To: Vann, Bradley[Vann.Bradley@epa.gov]
Cc: McKernan, John[McKernan.John@epa.gov]
From: Kiefer, Robyn V NWK
Sent: Tue 1/6/2015 3:34:30 PM
Subject: RE: Preparation language for Wednesday's meeting with MDNR (UNCLASSIFIED)
Heat Extraction Pilot Study - data needs.xlsx

Classification: UNCLASSIFIED
Caveats: NONE

Brad:

We essentially would like to see all their operational information on the pilot, including the date they started operating the cooling equipment along with all data collected.

We see that they have provided readings for the TMPs adjacent to a couple of the GIWs; however, we don't know which readings are prior to or after the cooling equipment was started up. There isn't an apparent impact, so we don't even know if the cooling equipment has been started.

The data provided is in word format. It would be helpful to have the data either in excel format so we can sort by depth and date or more preferred would be to have Republic provide graphs for each TMP that show the temp trends by depth and date with start of cooling equipment annotated.

Also, to clarify 7) below, for the pilot, it would be best to have coolant temperature in and out at each pilot well in addition to the in/out temps of the cooling equipment. After looking at Republic's proposed system (Aug 15 letter), there are no provisions for measuring coolant temperature at each well, but they do have means to measure in/out temps at the cooling equipment.

The attached table attempts to summarize the data needed to evaluate the pilot study and incorporates the ROI info. It might help clarify some of the info we'd like to see.

Thanks,
Robyn

-----Original Message-----

From: Vann, Bradley [mailto:Vann.Bradley@epa.gov]
Sent: Monday, January 05, 2015 3:52 PM
To: Kiefer, Robyn V NWK; McKernan, John
Subject: [EXTERNAL] Preparation language for Wednesday's meeting with MDNR

Robyn/John,

Trying to confirm what information EPA needs before our meeting with MDNR on pending IB items. I've listed a number of items below from our call today (and others), but are there any specifics missing please let me know so we can have a clear EPA position and be sure MDNR fully understands our concerns.

I heard the following needs:

- 1) Monitoring gas analytical data to better evaluate SSE

- 2) Anticipated radiant heat to remove from system (delta temp)
- 3) Energy use required related to cooling capacity
- 4) Radius of Influence per cooling point
- 5) As-Builts
- 6) How quickly they can expand it/remove heat from an area (ramp up time) to respond to SSE
- 7) Water temps in/out
- 8) Best options for design needs/expanded pilot
- 9) Quality of data to EPA with regards to where the SSE is in Neck vs North Quarry (if we can get this)
- 10) Include prior technical USACE "wish list" items sent to MDNR for draft order in December 2014 (bullet list)

Feel free to amend any errors or add items.

Thanks,

Bradley Vann - Remedial Project Manager

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